



>> [Semiconductor Home](#) > [Products](#) > [Analog & Mixed-Signal](#) > [Amplifiers](#) > [Operational Amplifiers](#) >

TL074, QUAD LOW-NOISE JFET-INPUT GENERAL-PURPOSE OPERATIONAL AMPLIFIER

Device Status: Active

- > [Description](#)
- > [Features](#)
- > [Datasheets](#)
- > [Pricing/Samples/Availability](#)
- > [Application Notes](#)
- > [User Manuals](#)
- > [Development Tools](#)
- > [Applications](#)

Parameter Name	TL074
delta VCC (max) (V)	36
delta VCC (min) (V)	7
IDD / ICC per channel (max) (mA)	2.5
IDD / ICC per channel (typ) (mA)	1.4
GBW (typ) (MHz)	3
Slew Rate (typ) (V/us)	13
VIO (Full Range) (max) (mV)	13
VIO (25 deg C) (max) (mV)	10
IIB (typ) (pA)	65
CMRR (typ) (dB)	100
Vn (typ) (nV/rtHz)	18
Number of Channels	4
Spec'd at VCC (V)	+/-15

Description

The JFET-input operational amplifiers in the TL07_ series are designed as low-noise versions of the TL08_ series amplifiers with low input bias and offset currents and fast slew rate. The low harmonic distortion and low noise make the TL07_ series ideally suited for high-fidelity and audio preamplifier applications. Each amplifier features JFET inputs (for high input impedance) coupled with bipolar output stages integrated on a single monolithic chip.

The C-suffix devices are characterized for operation from 0°C to 70°C. The I-suffix devices are characterized for operation from -40°C to 85°C. The M-suffix devices are characterized for operation over the full military temperature range of -55°C to 125°C.

† The D package is available taped and reeled. Add the suffix R to the device type (e.g., TL071CDR). The PW package is only available left-ended taped and reeled (e.g., TL072CPWLE).

Features

- Low Power Consumption
- Wide Common-Mode and Differential Voltage Ranges
- Low Input Bias and Offset Currents
- Output Short-Circuit Protection
- Low Total Harmonic Distortion
- 0.003% Typ
- Low Noise
- $V_n = 18 \text{ nV}/\sqrt{\text{Hz}}$ Typ at $f = 1 \text{ kHz}$
- High Input Impedance...JFET Input Stage
- Internal Frequency Compensation
- Latch-Up-Free Operation
- High Slew Rate...13 V/us Typ
- Common-Mode Input Voltage Range Includes V_{CC+}

To view the following documents, [Acrobat Reader 3.x](#) is required.

To download a document to your hard drive, right-click on the link and choose 'Save'.

Datasheets

Full datasheet in Acrobat PDF: [slos080d.pdf](#) (281 KB)

Full datasheet in Zipped PostScript: [slos080d.psz](#) (251 KB)

Pricing/Samples/Availability

Orderable Device	Package	Pins	Temp	Status	Price/unit USD (100-999)	Pack Qty	DSCC Number	Availability / Samples
JM38510/11906BCA	<u>J</u>	14	M	ACTIVE	31.73	1		Check stock or order
TL074CD	<u>D</u>	14		ACTIVE	0.60	50		Check stock or order
TL074CDBR	<u>DB</u>	14		ACTIVE				Check stock or order
TL074CDR	<u>D</u>	14		ACTIVE	0.53	2500		Check stock or order
TL074CN	<u>N</u>	14		ACTIVE	0.60	25		Check stock or order
TL074CNS	<u>NS</u>	14		ACTIVE				Check stock or order
TL074CNSR	<u>NS</u>	14		ACTIVE	0.59	2000		Check stock or order
TL074CPWLE	<u>PW</u>	14		OBSOLETE				
TL074CPWR	<u>PW</u>	14		ACTIVE	0.50	2000		Check stock or order
TL074ID	<u>D</u>	14		ACTIVE	0.80	50		Check stock or order
TL074IDR	<u>D</u>	14		ACTIVE	0.70	2500		Check stock or order
TL074IJ	<u>J</u>	14		OBSOLETE				
TL074IN	<u>N</u>	14		ACTIVE	0.80	25		Check stock or order
TL074MFKB	<u>FK</u>	20	M	ACTIVE	15.11	1	81023062A	Check stock or order
TL074MJ	<u>J</u>	14	M	ACTIVE	4.38	1		Check stock or order
TL074MJB	<u>J</u>	14	M	ACTIVE	6.41	1	8102306CA	Check stock or order
TL074MWB	<u>W</u>	14	M	ACTIVE	11.69	1	8102306DA	Check stock or order

Application Reports

View Application Reports for [Operational Amplifiers](#)

- [ANALOG APPLICATIONS JOURNAL](#) (SLYT012A, 781 KB)

- [ANALOG APPLICATIONS JOURNAL \(SLYT010\)](#)
- [ANALOG APPLICATIONS JOURNAL \(SLYT010A\)](#)
- [ANALOG APPLICATIONS JOURNAL FEBRUARY 2000 \(SLYT012, 781 KB\)](#)
- [ANALYSIS OF THE Sallen-Key ARCHITECTURE \(SLOA024A\)](#)
- [ELECTROSTATIC DISCHARGE APPLICATION NOTE \(SSYA008\)](#)
- [SIGNAL CONDITIONING PIEZOELECTRIC SENSORS \(SLOA033\)](#)
- [SIGNAL CONDITIONING WHEATSTONE RESISTIVE BRIDGE SENSORS \(SLOA034\)](#)
- [STABILITY ANALYSIS OF VOLTAGE-FEEDBACK OP AMPS, INCLUDING COMPENSATION TECHNIQUE \(SLOA020\)](#)
- [THERMAL CHARACTERISTICS OF LINEAR AND LOGIC PACKAGES USING JEDEC PCB DESIGNS \(SZZA017A\)](#)

User Manuals

- [UNIVERSAL OP AMP EVALUATION MODULE SELECTION GUIDE \(SLOU060, 10 KB\)](#)
- [UNIVERSAL OPERATIONAL AMPLIFIER EVM \(SLVU006A, 387 KB\)](#)
- [UNIVERSAL OPERATIONAL AMPLIFIER SINGLE, DUAL, QUAD \(MSOP/TSSOP\) \(SLOU055, 1196 KB\)](#)
- [UNIVERSAL OPERATIONAL AMPLIFIER SINGLE, DUAL, QUAD \(PDIP\) \(SLOU062, 1211 KB\)](#)
- [UNIVERSAL OPERATIONAL AMPLIFIER SINGLE, DUAL, QUAD \(SOIC\) EVALUATION MODULE WITH \(SLOU061, 1160 KB\)](#)

Table Data Updated on: 3/19/2000

[Search](#)
[Tech Support](#)
[Comments](#)
[Site Map](#)
[TI&ME](#)
[Home](#)

(c) Copyright 2000 Texas Instruments Incorporated. All rights reserved.

[Trademarks](#), [Important Notice!](#), [Privacy Policy](#)